I claim:

1. An access node for optical networks with variable access wavelengths, comprising:

a plurality of first optical conductors each disposed to connect a respective user device;

at least one second optical conductor for connecting the access node to an optical network; and

a plurality of light sources emitting light signals at wavelengths of the optical network and connected to said first optical conductors such that the light signals of said light sources can be modulated in the user devices.

2. The access node according to claim 1, wherein said at least one second optical conductor is one of a plurality of optical conductors connecting the access node to the optical network.

3. The access node according to claim 1, wherein said light sources are lasers.

4. The access node according to claim 1, wherein said light sources are laser arrays.

5.   The access node according to claim 1, which comprises optical coupling elements disposed between said light sources and said first optical conductors.

6.   The access node according to claim 5, wherein said optical coupling elements are selected from the group consisting of first circulators and directional couplers.

7.   The access node according to claim 1, which comprises a first switching matrix connected between said light sources and said first optical conductors.

8.   The access node according to claim 7, wherein said first switching matrix capable of multicasting.

9.   The access node according to claim 1, which comprises a signal processing block with optical wavelength division multiplexers connected between said first optical conductors and said second optical conductors.

10.   The access node according to claim 9, which comprises a second switching matrix disposed between said first optical conductors and said signal processing block.

11. The access node according to claim 9, wherein said signal processing block includes at least one additional signal processing unit.

12. The access node according to claim 11, wherein said at least one additional signal processing unit is selected from the group consisting of a switching matrix, an optical switch, an optical amplifier, and an optical monitoring device.

13. The access node according to claim 10, which comprises a further switching matrix combined with said second switching matrix.

14. In combination with an access node according to claim 1, a user device configured for connecting to the access node, the user device comprising a second circulator and a modulator to be connected to an information source.

15. In combination with an access node according to claim 1, a user device configured for connecting to the access node, the user device comprising a modulator operating in reflection mode and configured to be connected to an information source.

16. A method of feeding a plurality of signals from a plurality of users into an optical network, which comprises the following steps:

generating a number light signals of different wavelength in an access node;

extracting the light signals from the access node and transmitting the light signals to a number user devices;

modulating the light signals with user signals in the user devices. to form modulated light signals;

injecting the modulated light signals into the access node;

generating wavelength division multiplex signals in the access node; and

feeding the wavelength division multiplex signals into the optical network.

17. The method according to claim 16, which comprises providing an access node according to claim 1 and generating the light signals in the access node.

18. The method according to claim 16, which comprises feeding the light signals into user devices according to claim 14.

19. The method according to claim 16, which comprises feeding the light signals into user devices according to claim 15.

20. A method of feeding a plurality of signals from a plurality of users into an optical network, which comprises the following steps: providing an access node according to claim 1 and at least one user device according to claim 14, and carrying out the method according to claim 15 with the access node and the at least one user device.